

IN THE CLAIMS:

1. (Currently Amended) An adsorption powder suitable for removing metals and organic compounds from a gas streams, wherein the powder comprises a carbon-based powder and an effective amount of from at least about 10.1 to about 45 weight percent of cupric chloride, based on 100 total weight percent to remove metals and organic compounds from vaporous components.

2. (Original) The adsorption powder according to Claim 1, wherein the carbon-based powder is selected from the group consisting of coal carbons, wood carbon, graphite carbon, activated carbon, fruit pits, coconut shell carbon, peat carbons, petroleum cokes, synthetic polymers, and combinations thereof.

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3. (Canceled)

4. (Withdrawn)

5. (Currently Amended) The adsorption powder according to Claim 4-2, wherein the powder further comprises a component selected from the group consisting of calcium hydroxide, sulfur, potassium permanganate, potassium iodide and combinations thereof.

6. (Currently Amended) The adsorption powder according to any one of Claim 5, wherein the powder comprises from about 10 to about 60 weight percent of carbon-based powder, from about 10 to about 70 weight percent of calcium hydroxide, and from at least about 10.1 to about 45 weight percent of cupric chloride, based on 100 total weight percent.

7-9 (Canceled)

10. (Currently Amended) The adsorption powder according to Claim 9 6, wherein the powder comprises from about 35 to about 45 weight percent of carbon-based powder, from about 50 to about 65 weight percent of calcium hydroxide, from about 2 to about 8 weight percent of sulfur, and from about 4 to about 10.1 to about 12 weight percent of cupric chloride, based on 100 total weight percent.

11. (Canceled)

12. (Currently Amended) The adsorption powder according to Claim 5, wherein the powder comprises from about 25 to about 45 weight percent of carbon-based powder, from about 40 to about 60 weight percent of calcium hydroxide, from about 2 to about 10 weight percent of sulfur, from about 5 to about 15 weight percent of potassium permanganate, and from about 4 10.1 to about 15 weight percent of cupric chloride, based on 100 total weight percent.

13-19 (Canceled)

20. (Currently Amended) The adsorption powder according to Claim 5, wherein the powder comprises from about 10 to about 45 weight percent of potassium iodide impregnated onto a carbon substrate, from about 45 to about 55 weight percent of calcium hydroxide, and from about 4 10.1 to about 45 weight percent of cupric chloride, based on 100 total weight percent.

21. (Canceled)

22. (Original) The adsorption powder according to Claim 20, wherein the powder comprises about 10 weight percent of potassium iodide impregnated onto a carbon substrate, about 45 weight percent of calcium hydroxide, and about 45 weight percent of cupric chloride.

23. (Canceled)

24. (Previous Amended) The adsorption powder according to Claim 1, wherein the metals are selected from mercury, lead, nickel, zinc, copper, arsenic, cadmium and combinations thereof.

25. (Previously Amended) The adsorption powder according to Claim 1, wherein the organic compounds are selected from furans and dioxins.

26. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising from about 25 to about 45 weight percent of carbon-based powder, from about 45 to about 60 weight percent of calcium hydroxide, from about 1 to about 15 weight percent of potassium iodide impregnate onto a carbon substrate, and from about 1 to about 10 weight percent of cupric chloride, based on 100 total weight percent.

27. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising from about 30 to about 40 weight percent of carbon-based powder, from about 50 to about 55 weight percent of calcium hydroxide, from about 5 to about 10 weight percent of potassium iodide impregnate onto a carbon substrate, and from about 5 to about 10 weight percent of cupric chloride, based on 100 total weight percent.

28. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 35 weight percent of carbon-based powder, about 55 weight percent of calcium hydroxide, about 5 weight percent of potassium iodide impregnated onto a carbon substrate, and about 5 weight percent of cupric chloride.

29. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 35 weight percent of carbon-based powder, about 50 weight percent of calcium hydroxide, about 10 weight percent of potassium iodide impregnated onto a carbon substrate, and about 5 weight percent of cupric chloride.

30. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 10 to about 45 weight percent of potassium iodide impregnated onto a carbon substrate, from about 45 to about 55 weight percent of calcium hydroxide, and from about 1 to about 45 weight percent of cupric chloride, based on 100 total weight percent.

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31. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 38 weight percent of potassium iodide impregnated onto a carbon substrate, about 52 weight percent of calcium hydroxide, and about 10 weight percent of cupric chloride.

32. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 10 weight percent of potassium iodide impregnated onto a carbon substrate, about 45 weight percent of calcium hydroxide, and about 45 weight percent of cupric chloride.

33. (New) An adsorption powder suitable for removing metals and organic compounds from gas streams, comprising about 10 weight percent of potassium iodide impregnated onto a carbon substrate, about 30 weight percent of activated carbon, about 50 weight percent of calcium hydroxide, and about 10 weight percent of cupric chloride.